

May 11, 2001

Mr. Patrick Peak  
Ivy Hill Corporation  
4025 Third Parkway  
Terre Haute, Indiana 47804

Re: **167-14298**  
Second Administrative Amendment to  
**FESOP 167-6257-00063**

Dear Mr. Peak:

Ivy Hill Corporation was issued a FESOP permit on December 13, 1996 for a printing operation. A letter requesting an additional printing press was received on April 5, 2001. Pursuant to the provisions of 326 IAC 2-8-10(a)(14) the permit is hereby administratively amended as follows (modified pages to follow):

1. Addition of Section D.9 to the Table of Contents on page 3.
2. Add this description "One (1) Planeta printing press (Model RA-142-6+L-ALV) with a maximum operating rate of 14,000 sheets per hour, which is identified as 6C56-2, without control." as item 9 in Condition A.2 on page 4.
3. Add new Section D.9 as pages 37a and 37b. This section will contain exactly the same provisions as the other printing presses.
4. Update the reporting form on page 43 to include this new printing press.
5. Add a new report form as page 53a for the VOC reporting related to this new printing press.

All other conditions of the permit shall remain unchanged and in effect. A detailed explanation of the reasoning behind issuing the change as an Administrative Amendment is in the attached Technical Support Document (TSD). Please attach a copy of this amendment and the following revised permit pages to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Mr. Rob Harmon, at (812) 462-3433, extension 14.

Sincerely,

George M. Needham  
Director  
Vigo County Air Pollution Control

Attachments

RKH

cc: Mindy Hahn - IDEM-OAQ, Permit Branch  
Winter Bottum - IDEM-OAQ

**FEDERALLY ENFORCEABLE STATE  
OPERATING PERMIT (FESOP)  
OFFICE OF AIR QUALITY  
and  
VIGO COUNTY AIR POLLUTION CONTROL**

**Ivy Hill Corporation  
4025 Third Parkway  
Terre Haute, Indiana 47804**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F167-6257-00063	
Issued by: George M. Needham, Director Vigo County Air Pollution Control	Issuance Date: December 13, 1996  Expiration Date: December 13, 2001
First Significant Revision: 167-9592	Issuance Date: May 18, 1998
First Administrative Amendment: 167-10732	Issuance Date: May 7, 1999
Second Administrative Amendment: 167-14298	Pages Affected: 3, 4, 37a, 37b, 43, 53a
Issued by: George M. Needham, Director Vigo County Air Pollution Control	Issuance Date: May 11, 2001

TABLE OF CONTENTS		
Section	Description	Page No.
<b>C</b>	<b>SOURCE OPERATION CONDITIONS</b>	<b>18</b>
<b>D.1</b>	<b>FACILITY OPERATION CONDITIONS</b>	<b>23</b>
	One (1) Planeta printing press identified as 6C56.	
<b>D.2</b>	<b>FACILITY OPERATION CONDITIONS</b>	<b>25</b>
	One (1) Planeta printing press identified as 6C41.	
<b>D.3</b>	<b>FACILITY OPERATION CONDITIONS</b>	<b>27</b>
	One (1) Diddle Printing Press identified as UVW001.	
<b>D.4</b>	<b>FACILITY OPERATION CONDITIONS</b>	<b>29</b>
	One (1) Planeta Printing Press identified as 6C64.	
<b>D.5</b>	<b>FACILITY OPERATION CONDITIONS</b>	<b>31</b>
	One (1) Planeta Printing Press identified as 7C55.	
<b>D.6</b>	<b>FACILITY OPERATION CONDITIONS</b>	<b>33</b>
	One (1) Planeta Printing Press identified as 6C50.	
<b>D.7</b>	<b>FACILITY OPERATION CONDITIONS</b>	<b>35</b>
	One (1) Heidelberg Printing Press identified as 7C40.	
<b>D.8</b>	<b>FACILITY OPERATION CONDITIONS</b>	<b>37</b>
	One (1) Puhl paper collector/baler.	
<b>D.9</b>	<b>FACILITY OPERATION CONDITIONS</b>	<b>37a</b>
	One (1) Planeta Printing Press identified as 6C56-2	
	<b>FORMS</b>	
	Certification Form	<b>38</b>
	Deviation Forms (2)	<b>39, 41</b>
	Reporting Forms	<b>42, 43, 44, 45, 46, 47, 49, 50, 51, 52, 53, 53a</b>
	<b>Total Number of Permit Pages</b>	<b>53</b>
	<b>Total Number of Forms</b>	<b>15</b>
	<b>Technical Support Document</b>	<b>8</b>
	<b>Emissions Calculations</b>	<b>8</b>

## SECTION A SOURCE SUMMARY

### A.1 General Information

The Permittee owns and operates a printing operation.

Responsible Official: Patrick J. Peak  
Source Address: 1405 North Fruitridge Ave., Terre Haute, Indiana 47804  
Mailing Address: 4325 Shepherdsville Road, Louisville, KY, 40218  
SIC Code: 2752  
County Location: Vigo  
County Status: Nonattainment for SO<sub>2</sub>.  
Source Status: Synthetic Minor Source, FESOP Program

### A.2 Emission Units and Pollution Control Summary

The stationary source consists of the following emission units and pollution control devices:

1. One (1) Planeta printing press (Model P74-6, Serial Number 267440) which is identified as 6C56. This press was installed in 1988.
2. One (1) Planeta printing press (Model RA-105-6+L) which is identified as 6C41. This press was installed in 1999.
3. One (1) Diddle printing press (Model ML-1000, Serial Number 3322438) which is identified as UVW001. This press was installed in 1996.
4. One (1) Planeta printing press (Model V68-12SW2, Serial Number 276910) which is identified as 6C64. This press was installed in 1995.
5. One (1) Planeta printing press (Model V87-12, Serial Number 240423) which is identified as 7C55. This press was installed in 1986.
6. One (1) Planeta printing press (Model VL76g-2SW1, Serial Number 300920) which is identified as 6C50. This press was installed in 1991.
7. One (1) Heidelberg printing press (Model CD102-7+LX, Serial Number 538358) which is identified as 7C40. This press was installed in 1996.
8. One (1) Puhl paper collector/baler which was installed in 1991.
9. One (1) Planeta printing press (Model RA-142-6+L-ALV) with a maximum operating rate of 14,000 sheets per hour, which is identified as 6C56-2, without control.

## SECTION D.9

## FACILITY OPERATION CONDITIONS

One (1) Planeta printing press (Model RA-142-6+L-ALV) with a maximum operating rate of 14,000 sheets per hour, which is identified as 6C56-2, without control.

### Emissions Limitations and Standards [326 IAC 2-8-4(1)]

#### D.9.1 Volatile Organic Compound

That the VOC emissions from the printing press shall be limited as follows:

VOC emissions shall not exceed 22 tons per year rolled monthly.

Additionally, the VOC emissions from all the presses combined shall not exceed 88 tons per year rolled monthly.

Therefore, the requirements of 326 IAC 2-7 and 326 IAC 8-1-6 do not apply.

#### D.9.2 Hazardous Air Pollutants

That the combined hazardous air pollutant emissions from all the printing presses combined shall be limited to no more than 21.1 tons per year rolled monthly.

Therefore, the requirements of 326 IAC 2-7 do not apply.

### Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

#### D.9.3 Volatile Organic Compound (VOC) Usage

That the Permittee shall maintain records at the source of the materials used that contain any VOCs. The records shall be complete and sufficient to establish compliance with the VOC usage limits and VOC emission limits established in this permit. The records shall contain a minimum of the following:

- (a) The weight of VOC containing material used, including purchase orders and invoices necessary to verify the type and amount used;
- (b) The VOC content (weight percent) of each material used;
- (c) The weight of VOCs emitted for each compliance period, considering capture and control efficiency, if applicable.

**D.9.4 Hazardous Air Pollutant (HAP)**

That the Permittee shall maintain records at the facility of the materials used that contain any HAPs. The records shall be complete and sufficient to establish compliance with the HAP usage limits and HAP emission limits that may be established in this permit. The records shall contain a minimum of the following:

- (a) The weight of HAP containing material used, including purchase orders and invoices necessary to verify the type and amount used;
- (b) The HAP content (**weight percent**) of each material used;
- (c) Identification of the facility or facilities associated with the usage of each HAP; and
- (d) The weight of HAPs emitted for each compliance period, considering capture and control efficiency, if applicable.

**D.9.5 Quarterly Reporting**

That a quarterly summary to document compliance with operation conditions numbers D.9.1 and D.9.2 shall be submitted, using the enclosed forms or their equivalent, within thirty (30) days after the end of the quarter being reported.

**VIGO COUNTY AIR POLLUTION CONTROL**  
**103 South 3<sup>rd</sup> Street**  
**Terre Haute Indiana, 47807**

and

**INDIANA DEPARTMENT OF**  
**ENVIRONMENTAL MANAGEMENT**  
**Office of Air Quality**  
**Compliance Data Section**  
**100 North Senate Ave**  
**P.O. Box 6015**  
**Indianapolis, Indiana 46206-6015**

**FESOP Quarterly Report**  
**VOC Summary**

Source Name: Ivy Hill Packaging  
Source Address: 1405 Fruitridge Ave., Terre Haute, Indiana 47804  
FESOP No.: F 167-6257-00063  
Facility: Printing Presses  
Parameter: VOC Fed to the printing presses

**Year:** \_\_\_\_\_

Press	Month _____	Month _____	Month _____	Limit
6C56				1.83 ton/month
6C41				1.83 ton/month
UVW001				1.83 ton/month
6C64				1.83 ton/month
7C55				1.83 ton/month
6C50				1.83 ton/month
7C40				1.83 ton/month
6C56-2				1.83 ton/month
Total				7.33 ton/month

- 9 No deviation occurred in this quarter.  
9 Deviation/s occurred in this quarter.  
Deviation has been reported on: \_\_\_\_\_  
9 Attached are supporting spreadsheets.

Submitted by: \_\_\_\_\_  
Title/Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_

Ivy Hill Packaging  
Terre Haute, Indiana  
Permit Reviewer: Rob Harmon

Second Administrative Amendment  
167-14298-00063  
Rob Harmon

Page 53a of 53  
FESOP No. F 167-6257-00063

**VIGO COUNTY AIR POLLUTION CONTROL**  
**103 South 3<sup>rd</sup> Street**  
**Terre Haute, IN 47807**

and

**INDIANA DEPARTMENT OF**  
**ENVIRONMENTAL MANAGEMENT**  
**COMPLIANCE DATA SECTION**  
**Office of Air Quality**  
**100 North Senate Ave.**  
**P.O. Box 6015**  
**Indianapolis, IN 46206-6015**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)**  
**VOC Report Form**

Source Name: Ivy Hill Packaging  
Source Address: 1405 North Fruitridge Ave., Terre Haute, Indiana  
FESOP No.: F 167-6257-00063  
Facility: Press 6C56-2  
Parameter: VOC Emissions  
Limit: 22 Tons per year Press 6C41 (Rolled Monthly)

Year

Month	Ton VOC Press 6C41 This Month	Ton VOC Press 6C41 Last 12 Months

- 9 No Deviation occurred in this month.
- 9 Deviation/s occurred in this month.  
Deviation has been reported on: \_\_\_\_\_
- 9 Attached are supporting spreadsheets.

Submitted by: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_



**Indiana Department of Environmental Management  
Office of Air Quality  
and  
Vigo County Air Pollution Control**

**Technical Support Document (TSD) for a for an  
Administrative Amendment to a  
Federally Enforceable State Operating Permit (FESOP)**

**Source Background and Description**

<b>Source Name:</b>	<b>Ivy Hill Corporation</b>
<b>Source Location:</b>	<b>4025 Third Parkway, Terre Haute, Indiana 47804</b>
<b>County:</b>	<b>Vigo County</b>
<b>SIC Code:</b>	<b>2752</b>
<b>Operation Permit No.:</b>	<b>F 167-6257-00063</b>
<b>Operation Permit Issuance Date:</b>	<b>December 13, 1996</b>
<b>Administrative Amendment No.:</b>	<b>167-14298-00063</b>
<b>Permit Reviewer:</b>	<b>Rob Harmon - VCAPC</b>

Vigo County Air Pollution Control (VCAPC) and The Office of Air Quality (OAQ) have reviewed a revision application from Ivy Hill Corporation relating to the operation of a new printing press.

1. One (1) Planeta printing press (Model RA-142-6+L-ALV) with a maximum operating rate of 14,000 sheets per hour, which is identified as 6C56-2, without control.

**History**

On April 5, 2001, Ivy Hill Corporation submitted an application to VCAPC and the OAQ requesting to add a printing press to their existing plant. Ivy Hill Corporation was issued a FESOP on December 13, 1996.

**Existing Approvals**

The source was issued a FESOP (F167-6257-00063) on December 13, 1996. The source has since received the following:

- (a) First Significant Modification No.: 167-9592, issued on May 18, 1998; and
- (b) First Administrative Amendment No.: 167-10732, issued on May 7, 1999.

**Enforcement Issue**

There are no enforcement actions pending.

**Recommendation**

The staff recommends to the Commissioner that the Administrative Amendment be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on April 5, 2001. Additional information was received on April 9, 2001.

## Emission Calculations

See Appendix A of this document for detailed emissions calculations

## Potential To Emit of the Modification

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA." For press 6C56-2 the PTE is estimated to be:

Pollutant	Potential To Emit (tons/year)
PM	negligible
PM-10	negligible
SO <sub>2</sub>	negligible
VOC	34.82
CO	negligible
NO <sub>x</sub>	negligible

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Potential To Emit (tons/year)
Glycol Ethers	18.31
TOTAL	18.31

## Limited Potential to Emit

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units.

	Limited Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAPs
6C56-2				22			see below

The Potential to Emit VOC from this particular press is limited to less than 22 tons per 12-month period, rolled monthly for 2 main reasons. Having a limitation below 25 tons per year (VOC) makes the requirements of 326 IAC 8-1-6 not applicable. The other factor is the specific rule that allows this addition of equipment to be handled as an Administrative Amendment instead of as some other form of revision. That rule specifies that the new equipment must comply with the same permit terms and conditions as existing equipment. At the time this FESOP was issued VCAPC and IDEM-OAQ were limiting emission units such as this to 11/12ths of the limitation in order to assure continuous compliance with the 12 month total. This procedure has since been changed, but in order to utilize this particular provision the new equipment must be able to comply exactly the same way the older ones did. Most likely, all of these limitations will be reviewed (and modified if required) during the FESOP renewal process. Ivy Hill Corporation has already applied for this renewal and it will be processed under 167-13900-00063.

As a FESOP Ivy Hill will have to continue to stay below 10 tons of a single HAP and 25 tons combined HAP for the entire source. This new press will contribute to those existing limitations, and is therefore effectively limited to below those thresholds.

### Justification for Modification

The FESOP is being modified by an Administrative Amendment. This is specifically allowed for under the provisions of 326 IAC 2-8-10(a)(14) which states: "Incorporates a modification that adds an emission unit or units of the same type that are already permitted and that will comply with the same applicable requirements and permit terms and conditions as the existing emissions unit or units, except if the modification would result in a potential to emit greater than the thresholds in 326 IAC 2-2 or 326 IAC 2-3."

### County Attainment Status

The source is located in Vigo County.

Pollutant	Status
PM-10	attainment
SO <sub>2</sub>	maintenance attainment
NO <sub>2</sub>	attainment
Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO<sub>x</sub>) are precursors for the formation of ozone. Therefore, VOC and NO<sub>x</sub> emissions are considered when evaluating the rule applicability relating to the ozone standards. Vigo County has been designated as attainment or unclassifiable for ozone.

### Federal Rule Applicability

- (a) 6C56-2 (printing press) is not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60, Subpart QQ), due to type of printing operation it is. Subpart QQ is for publication rotogravure. This printing press is a lithographic operation.
- (b) 6C56-2 (printing press) is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63, Subpart KK) for 2 reasons. First, the limitations on this press and those on the entire source keep it from being a major source of HAP emissions. Second, Subpart KK is not for Lithographic printing. It is for publication rotogravure, product and packaging rotogravure, or web-web flexographic printing only.

### State Rule Applicability - Individual Facilities

#### 326 IAC 8-1-6 (New facilities; general reduction requirements)

This new printing press (identified as 6C56-2) is not subject to the requirements of 326 IAC 8-1-6 because the VOC emissions are limited by this approval. The press will be limited to no more than 22 tons of VOC per 12 consecutive month period, rolled monthly. The threshold for this particular rule is 25 tons of VOC per year.

#### 326 IAC 8-5-5 (Graphic arts operations)

This new printing press (identified as 6C56-2) is not subject to the requirements of 326 IAC 8-5-5 because of the method of printing utilized. This printing press is a lithographic press, and 326 IAC 8-5-5 specifically regulates packaging rotogravure, publication rotogravure, and flexographic printing emission units.

### **Air Toxic Emissions**

Indiana presently requests applicants to provide information on emissions of the 188 hazardous air pollutants (HAPs) set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Quality (OAQ) Part 70 Application Form GSD-08.

- (a) This source will emit levels of air toxics less than those which constitute a major source according to Section 112 of the 1990 Clean Air Act Amendments (after limitations).

### **Conclusion**

The operation of this printing press shall be subject to the conditions of the attached Administrative Amendment No. **167-14298-00063**.

**Appendix A: Emissions Calculations  
VOC From Printing Press Operations**

**Company Name:** Ivy Hill Corporation  
**Address City IN Zip:** 4025 Third Parkway, Terre Haute, IN 47804  
**ID:** 167-14298  
**Plt ID:** 167-00063  
**Reviewer:** Rob Harmon  
**Date:** April 30, 2001

THROUGHPUT			
Press I.D.	MAXIMUM LINE SPEED (FEET/MIN)	MAXIMUM PRINT WIDTH (INCHES)	MMin^2/YEAR
6C56-2	777.8	56	274721

INK VOCS					
Ink Name Press Id	Maxium Coverage '(lbs/MMin^2)	Weight % Volatiles*	Flash Off %	Throughput (MMin^2/Year)	Emissions (TONS/YEAR)
U.V. Coating	0.6754	9.0%	100.00%	274721	8.35
Blanket/Roller Wash	0.1608	100.0%	100.00%	274721	22.09
Ink (69356)	0.0447	0.1%	100.00%	274721	0.01
Ink (69357)	0.0447	0.0%	100.00%	274721	0.00
Ink (69359)	0.0447	0.0%	100.00%	274721	0.00
Ink (69360)	0.0447	4.4%	100.00%	274721	0.27
Ink (69362)	0.0447	0.0%	100.00%	274721	0.00
Ink (69663)	0.0447	0.0%	100.00%	274721	0.00
Fountain Additive (HDA 61)	0.032	89.7%	100.00%	274721	3.94
Fountain Additive (HDF 52)	0.0371	0.0%	100.00%	274721	0.00
Cleaning Material	0.0093	13.0%	100.00%	274721	0.17

Total VOC Emissions =	<b>34.82 Ton/yr</b>
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\*VOC (Tons/Year) = Maximum Coverage pounds per MMin^2 \* Weight % volatiles (weight % of water & organics - weight % of water = weight % organics) \* Flash off \* Throughput \* 1 Ton per 2000 pounds

**METHODOLOGY**

Throughput = Maxium line speed feet per minute \* Convert feet to inches \* Maximum print width inches \* 60 minutes per hour \* 8760 hours per year = MMin^2 per Year

VOC = Maximum Coverage pounds per MMin^2 \* Weight percentage volatiles (water minus organics) \* Flash off \* Throughput \* Tons per 2000 pounds = Tons per Year

NOTE: HEAT SET OFFSET PRINTING HAS AN ASSUMED FLASH OFF OF 80%. OTHER TYPES OF PRINTERS HAVE A FLASH OFF OF 100%.

(Source -OAQPS Draft Guidance, "Control of Volatile Organic Compound Emissions from Offset Lithographic Printing (9/93) )

**HAP Calculations**

Blanket/Roller Wash contains glycol ethers

82.91%

18.31 tpy